

IN THE CLAIMS

10/524356
BT01 Rec'd PCT/PTO 14 FEB 2005

Please amend the claims as follows:

Claims 1-10 (Canceled).

Claim ~~N~~⁷ (New): A process for fractionating a starting mixture of two or more components by extractive distillation using a selective solvent in a dividing wall column, wherein

the process is carried out in a dividing wall column having a dividing wall aligned in a longitudinal direction of the column and extending to an upper end of the column and dividing an interior of the column into a first region, a second region, and a lower combined column region,

the starting mixture is fed into the first region, a first top stream is taken off from the first region, and a second top stream is taken off from the second region, with each of the streams having a prescribed specification,

the selective solvent is introduced in an upper part of the first region or in an upper part of the second region, and

flow of solvent into the first region or flow of solvent into the second region are set so that each of the prescribed specifications for the top streams are met.

Claim ~~12~~⁸ (New): A process as claimed in claim ~~11~~⁷, wherein a stream of the selective solvent is introduced only in the upper part of the first region.

Claim ~~13~~⁹ (New): A process as claimed in claim ~~11~~⁷, wherein a stream of the selective solvent is introduced only in the upper part of the second region.

Claim ¹⁰~~14~~ (New): A process as claimed in claim ⁷~~11~~, wherein a side stream is taken off from the lower combined column region and laden solvent from the bottom of the column is degassed in a bottom vaporizer and taken off as a purified solvent stream.

Claim ¹¹~~15~~ (New): A process as claimed in claim ¹⁶~~14~~, wherein the laden solvent is recycled to the extractive distillation.

Claim ¹²~~16~~ (New): A process as claimed in claim ⁷~~11~~, wherein one or more liquid streams or substreams is taken off from the dividing wall column at one or more thermodynamically suitable theoretical plates, partly or completely vaporized by heat transfer from hot, degassed solvent stream, and returned to the dividing wall column.

Claim ¹³~~17~~ (New): A process as claimed in claim ¹²~~16~~, wherein the one or more liquid streams or substreams is returned to the dividing wall column at a same theoretical plate from which the liquid stream or substream had been taken off.

Claim ¹⁴~~18~~ ¹⁰ (New): A method of using a process as claimed in claim ⁷~~11~~ for fractionating hydrocarbon mixtures or aromatic mixtures.

Claim ¹⁵~~19~~ (New): A method of using a process as claimed in claim ⁷~~11~~, for fractionating hydrocarbon mixtures of C₄ fractions or C₅ fractions.

Claim ¹⁶~~20~~ (New): A method of using a process as claimed in claim ⁷~~11~~ for fractionating aromatic mixtures of benzene/toluene/xylene mixtures or mixtures of isomeric xylenes.